Science & Technology Goals/Objectives

for the

FY 2006 Performance Evaluation of UT-Battelle

for

Management and Operation

of the

Oak Ridge National Laboratory

Scores are to be assigned as follows:

FY 2006 Contractor Letter Grade/Numerical Scoring											
Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	**4.3-4.1**	**4.0-3.8**	**3.7-3.5**	**3.4-3.1**	**3.0-2.8**	**2.7-2.5**	**2.4-2.1**	**2.0-1.8**	**1.7-1.1**	**1.0-0.8**	**0.7-0**

The following table defines the letter grades and scoring ranges. Note that a grade of B+ is assigned when expectations are being met.

Letter Grade	**Numeric Grade**	**Definition**
A+	4.3 – 4.1	Significantly exceeds expectations of performance as set within performance measures/targets identified for each Objective or within other areas within the purview of the Objective. Areas of notable performance have or have the potential to significantly improve the overall mission of the Laboratory. No specific deficiency noted within the purview of the overall Objective being evaluated.
A	4.0 – 3.8	Notably exceeds expectations of performance as set within performance measures/targets identified for each Objective or within other areas within the purview of the Objective. Areas of notable performance either have or have the potential to improve the overall mission of the Laboratory. Minor deficiencies noted are more than offset by the positive performance within the purview of the overall Objective being evaluated and have no potential to adversely impact the mission of the Laboratory.
A-	3.7 – 3.5	Meets expectations of performance as set within performance measures/targets identified for each Objective with some notable areas of increased performance identified. Deficiencies noted are offset by the positive performance within the purview of the overall Objective being evaluated with little or no

Letter Grade	Numeric Grade	Definition
		potential to adversely impact the mission of the Laboratory.
B+	3.4 – 3.1	Meets expectations of performance as set by the performance measures /targets identified for each Objective with no notable areas of increased or diminished performance identified. Deficiencies identified are offset by positive performance and have little to no potential to adversely impact the mission of the Laboratory.
B	3.0 – 2.8	Most expectations of performance as set by the performance measures/targets identified for each Objective are met and/or other minor deficiencies are identified. Performance measures/targets or other minor deficiencies identified are offset by positive performance within the purview of the Objective and have little to no potential to adversely impact the mission of the Laboratory.
B-	2.7 – 2.5	One or two expectations of performance set by the performance measures/targets are not met and/or other deficiencies are identified and although they may be offset by other positive performance, they may have the potential to negatively impact the Objective or overall Laboratory mission accomplishment.
C+	2.4 – 2.1	Some expectations of performance set by the performance measures /targets are not met and/or other minor deficiencies are identified and although they may be offset by other positive performance, they may have the potential to negatively impact the Objective or overall Laboratory mission accomplishment.
C	2.0 – 1.8	A number of expectations as set by the performance measures/targets are not met and/or a number of other deficiencies are identified and although they may be somewhat offset by other positive performance, they have the potential to negatively impact the Objective or overall Laboratory mission accomplishment.
C-	1.7 – 1.1	Most expectations as set by the performance measures/targets are not met and/or other major deficiencies are identified which have or will negatively impact the Objective or overall Laboratory mission accomplishment if not immediately corrected.
D	1.0 – 0.8	Most or all expectations as set by the performance measures/targets are not met and/or other significant deficiencies are identified which have negatively impacted the Objective and/or overall Laboratory mission accomplishment.
F	0.7 – 0	All expectations as set by the performance

Letter Grade	Numeric Grade	Definition
		measures/targets are not met and/or other significant deficiencies are identified which have significantly impacted both the Objective and the accomplishment of the Laboratory mission.

PERFORMANCE GOAL 1.0: Provide for Efficient and Effective Mission Accomplishment

The Contractor produces high-quality, original, and creative results that advance science and technology; demonstrates sustained scientific progress and impact; receives appropriate external recognition of accomplishments; and contributes to overall research and development goals of the Department and its customers.

1.1 Science and technology results provide meaningful *(impact)* on the field

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.:

- The impact of publications on the field;
- Publication in journals outside the field indicating broad impact;
- Impact on DOE or other customer mission(s);
- Successful stewardship of mission-relevant research areas;
- Significant awards (R&D 100, FLC, Nobel Prizes, etc.);
- Invited talks, citations, making high-quality data available to the scientific community
- Development of tools and techniques that become standards or widely-used in the scientific community.

Score	Performance
3.8 - 4.3	Changes the way the research community thinks about a particular field; resolves critical questions and thus moves research areas forward; results generate huge interest/enthusiasm in the field.
3.1 - 3.4	Impacts the community as expected. Strong peer review comments in all relevant areas.
2.8 - 3.0	Not strong peer review comments in at least one significant research area
1.8 - 2.0	One research area just not working out. Peer review reveals that a program isn't going anywhere.
0.8 - 1.0	Failure of multiple program elements.
0 - 0.7	Gross scientific incompetence and/or scientific fraud.

1.2 Provide quality leadership in science and technology *(leadership)*

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by progress reports, peer reviews, Program Office reviews/oversight, etc.:

- Willingness to pursue novel approaches and/or demonstration of innovative solutions to problems;
- Willingness to take on high-risk/high payoff/long-term research problems, evidence that the Contractor "guessed right" in that previous risky decisions proved to be correct and are paying off;
- The uniqueness and challenge of science pursued, recognition for doing the best work in the field;
- Extent of collaborative efforts, quality of the scientists attracted and maintained at the Laboratory;
- Staff members visible in leadership position in the scientific community; and
- Effectiveness in driving the direction and setting the priorities of the community in a research field

Score	Performance
3.8 - 4.3	Laboratory staff lead Academy or equivalent panels, laboratory's work changes the direction of research fields; world-class scientists are attracted to the laboratory, lab is trendsetter in a field.
3.1 - 3.4	Strong research performer in most areas; staff asked to speak to Academy or equivalent panels to discuss further research directions; lab is center for high-quality research and attracts full cadre of researchers; some aspects of programs are world-class.
2.8 - 3.0	Strong research performer in many areas; staff asked to speak to Academy or equivalent panels to discuss further research directions; few aspects of programs are world-class.
1.8 - 2.0	Working on problems no longer at the forefront of science; stale research evolution, not revolutionary.
0.8 - 1.0	Failure of multiple program elements.
0 - 0.7	Gross scientific incompetence and/or scientific fraud.

1.3 Provide and sustain science and technology outputs that advance program objectives and goals *(output)*

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured through progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.:

- The number of publications in peer-reviewed journals;
- The quantity of output from experimental and theoretical research; and
- Demonstrated progress against peer reviewed recommendations, headquarters guidance, etc.

Score	Performance
4.3	Not failing; see below.
0.7	Peer reviewers not satisfied; output not meeting general scientific standards; minimal progress against FWPs.

Note: The numerical grade for "Pass" is 4.3 and for "Fail" is 0.7.

1.4 Provide for effective delivery of science and technology *(delivery)*

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by progress reports, peer reviews, Field Work Proposals (FWPs), Approved Financial Plans (AFPs), Program Office reviews/oversight, etc.:

- Efficiency and effectiveness in meeting goals and milestones;
- Efficiency and effectiveness in delivering on promises, and getting instruments to work as promised; and
- Efficiency and effectiveness in transmitting results to the community and responding to DOE or other customer guidance.

Score	Performance
4.3	Not failing; see below
0.7	Peer reviewers, HQ not satisfied; significant number of milestones not met, results not delivered to community while it matters.

Note: The numerical grade for "Pass" is 4.3 and for "Fail" is 0.7.

PERFORMANCE GOAL 2.0: Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Facilities

The Contractor provides effective and efficient strategic planning; fabrication, construction and/or operations of Laboratory research facilities; and are responsive to the user community.

2.1 Provide effective facility design(s) as required to support laboratory programs (i.e. activities leading up to CD-2)

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by scientific/technical workshops developing pre-conceptual R&D, progress reports, Lehman reviews, Program/Staff Office reviews/oversight, etc.:

- Effectiveness of planning of preconceptual R&D and design for life-cycle efficiency;
- Leverage of existing facilities at the site;

- Delivery of accurate and timely information needed to carry out the critical decision and budget formulation process.; and
- Ability to meet the intent of DOE Order 413.3, Program and Project Management for the Acquisition of Capital Assets.

Score	Performance
3.8 - 4.3	In addition to meeting all measures under B+, the laboratory is recognized by the research community as the leader for making the science case for the acquisition; Takes the initiative to demonstrate the potential for revolutionary scientific advancement. Identifies, analyzes and champions novel approaches for acquiring the new capability, including leveraging or extending the capability of existing facilities and financing. Proposed approaches are widely repeatedly confirm potential for scientific discovery in areas that support the Department's mission, and potential to change a discipline or research area's direction.
3.1 - 3.4	Provides the overall vision for the acquisition. Displays leadership and commitment to achieving the vision within preliminary estimates that are defensible and credible in terms of cost, schedule and performance; develops quality analyses, preliminary designs, and related documentation to support the approval of the mission need (CD-0), the alternative selection and cost range (CD-1) and the performance baseline (CD-2). Solves problems and addresses issues. Keeps DOE appraised of the status, near-term plans and the resolution of problems on a regular basis. Anticipates emerging issues that could impact plans and takes the initiative to inform DOE of possible consequences.
2.8 - 3.0	Fails to meet expectations in one of the areas listed under B+.
1.8 - 2.0	The laboratory team develops the required analyses and documentation in a timely manner. However, inputs are mundane and lack innovation and commitment to the vision of the acquisition.
0.8 - 1.0	The potential exists for credible science and business cases to be made for the acquisition, but the laboratory fails to take advantage of the opportunity.
0 - 0.7	Proposed approaches are based on fraudulent assumption; the science case is weak to nonexistent, the business case is seriously flawed.

2.2 Provide for effective and efficient construction of facilities and/or fabrication of components (execution phase, Post CD-2 to CD-4)

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by progress reports, Lehman reviews, Program/Staff Office reviews/oversight, etc.:

- Adherence to DOE Order 413.3 Project Management for the Acquisition of Capital Assets;
- Successful fabrication of facility components:
- Effectiveness in meeting construction schedule and budget; and
- Quality of key staff overseeing the project(s).

Score	Performance
3.8 – 4.3	Laboratory has identified and implemented practices that would allow the project scope to be increased if such were desirable, without impact on baseline cost or schedule; Laboratory always provides exemplary project status reports on time to DOE and takes the initiative to communicate emerging problems or issues. There is high confidence throughout the execution phase that the project will meet its cost/schedule performance baseline; reviews identify environment, safety and health practices to be exemplary.
3.1 – 3.4	The project meets CD-2 performance measures; the laboratory provides sustained leadership and commitment to environment, safety and health; reviews regularly recognized the Laboratory for being proactive in the management of the execution phase of the project; to a large extent, problems are identified and corrected by the Laboratory with little, or no impact on scope, cost or schedule; DOE is kept informed of project status on a regular basis; reviews regularly indicate project is expected to meet its cost/schedule performance baseline.
2.8 – 3.0	The project fails to meet expectations in one of the areas listed under B+.
1.8 – 2.0	Reviews indicate project remains at risk of breaching its cost/schedule performance baseline; Laboratory commitment to environment, safety, and health issues is inadequate; reports to DOE can vary in degree o completeness; Laboratory commitment to the project appears to be subsiding.
0.8 – 1.0	Reviews indicate project is likely to breach its cost/schedule performance baseline; and/or Laboratory commitment to environment, safety and health issues is inadequate; reports to DOE are largely incomplete; Laboratory commitment to the project has subsided.
0 - 0.7	Laboratory falsifies data during project execution phase; shows disdain for executing the project within minimal standards for environment, safety or health, fails to keep DOE informed of project status; reviews regularly indicate that the project is expected to breach its cost/schedule performance baseline.

2.3 Provide efficient and effective operation of facilities

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by progress reports, peer reviews, Program/Staff Office reviews/oversight, performance against benchmarks, Approved Financial Plans (AFPs), etc.:

- Availability, reliability, and efficiency of facility(ies);
- Degree the facility is optimally arranged to support community;
- Whether R&D is conducted to develop/expand the capabilities of the facility(ies);
- Effectiveness in balancing resources between facility R&D and user support; and
- Quality of the process used to allocate facility time to users.

Score	Performance
3.8 – 4.3	Performance of the facility exceeds expectations as defined before the start of the year in any of these categories: cost of operations, users served, availability, beam delivery, or luminosity, and this performance can be directly attributed to the efforts of the laboratory; and/or the schedule and the costs associated with the ramp-up to

	steady state operations are less than planned and are acknowledged to be 'leadership caliber' by reviews; data on ES&H continues to be exemplary and widely regarded as among the 'best in class.'
3.1 – 3.4	Performance of the facility meets expectations as defined before the start of the year in all of these categories: cost of operations, users served, availability, beam delivery, or luminosity, and this performance can be directly attributed to the efforts of the laboratory; and/or the schedule and the costs associated with the ramp-up to steady state operations occur as planned; data on ES&H continue to be very good as compared with other projects in the DOE.
2.8 – 3.0	The project fails to meet expectations in one of the areas listed under B+.
1.8 – 2.0	Performance of the facility fails to meet expectations in several of the areas listed under B+; for example, the cost of operations is unexpectedly high and availability of the facility is unexpectedly low, the number of users is unexpectedly low, beam delivery or luminosity is well below expectations. Acquisition operates at steady state, on cost and on schedule, but the reliability of performance is somewhat below planned values, or acquisition operates at steady state, but the associated schedule and costs exceed planned values. Commitment to ES&H is satisfactory.
0.8 – 1.0	Performance of the facility fails to meet expectations in many of the areas listed under B+; for examples, the cost of operations is unexpectedly high and availability of the facility is unexpectedly low. Acquisition operates somewhat below steady state, on cost and on schedule, and the reliability performance is somewhat below planned values, or acquisition operates at steady state, but the schedule and costs associated exceed planned values. Commitment to ES&H is satisfactory.
0 – 0.7	The facility fails to operate; acquisition operates well below steady state and/or the reliability of the performance is well below planned values.

2.4 Effective utilization of facility(ies) to grow and support the Laboratory's research base.

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by peer reviews, participation in international design teams, Program/Staff Office reviews/oversight, etc.:

- Contractor's efforts to take full advantage of the facility to strengthen the Laboratory's research base; and
- Conversely the facility is strengthened by a resident research community that pushes the envelope of what the facility can do and/or are among the scientific leaders using the facility.

Score	Performance
3.8 – 4.3	Reviews document how multiple disciplines are using the facility in new and novel ways and reviews document that full advantage has been taken of the facility to strengthen the laboratory's research base.
3.1 – 3.4	Reviews state strong and effective team approach exists toward establishing an internal user community; laboratory is capitalizing on existence of facility to grow internal capabilities.
2.8 – 3.0	Reviews state that lab is establishing an internal user community, but laboratory is still not capitalizing fully on existence of facility to grow internal capabilities.
1.8 – 2.0	Reviews state that the laboratory has made satisfactory use of the facility, but has not

	demonstrated much innovation.
0.8 – 1.0	Few indigenous staff use the facility, with none using it in novel ways; research base is very thin.
0 – 0.7	Laboratory does not know how to operate/use its own facility adequately.

PERFORMANCE GOAL 3.0: Provide effective and efficient science and technology research project/program management.

The Contractor provides effective program vision and leadership; strategic planning and development of initiatives; recruits and retains a quality scientific workforce; and provides outstanding research processes, which improve research productivity.

3.1 Provide effective and efficient stewardship of scientific capabilities and Program vision

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by peer reviews, existence and quality of strategic plans as determined by SC and scientific community review, Program Office reviews/oversight, etc.:

- Efficiency and Effectiveness of joint planning (e.g., workshops) with outside community;
- Articulation of scientific vision;
- Development of core competencies, ideas for new facilities and research programs; and
- Ability to attract and retain highly qualified staff.

Score	Performance
3.8 – 4.3	Providing strong programmatic vision that extends past the laboratory and for which the lab is a recognized leader within SC and in the broader research communities; development and maintenance of outstanding core competencies, including achieving superior scientific excellence in both exploratory, high-risk research that is vital to the DOE/SC missions; attraction and retention of world-leading scientists; recognition within the community as a world leader in the field.
3.1 – 3.4	Coherent programmatic vision within the laboratory with input from and output to external research communities; development and maintenance of strong core competencies that are cognizant of the need for both high-risk research and stewardship for mission-critical research; attracting and retaining scientific staff who are very talented in all programs.
2.8 – 3.0	Programmatic vision that is only partially coherent and not entirely well connected with external communities; development and maintenance of some, but not all core competencies with attention to, but not always the balance between high-risk and mission-critical research; attraction and retention of scientific staff who are talented in most programs.
1.8 – 2.0	Failure to achieve a coherent programmatic vision with little or no connection with external communities; partial development and maintenance of core competencies (i.e., some are neglected) with imbalance between high-risk and mission-critical research; attracting only mediocre scientists while losing the most talented ones.

0.8 – 1.0	Minimal attempt to achieve programmatic vision; little ability to develop any core competencies with a complete lack of high-risk research and ignorance of mission-critical areas; minimal success in attracting even reasonably talented scientists.
0 – 0.7	No attempt made to achieve programmatic vision; no demonstrated ability to develop any core competencies with a complete lack of high-risk research and ignorance of mission-critical areas; failure to attract even reasonably talented scientists.

3.2 Provide effective and efficient science and technology project/program planning and management

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by peer reviews, existence and quality of strategic plans as determined by SC and scientific community review, Program Office and scientific community review/oversight, etc.:

- Quality of R&D and/or user facility strategic plans
- Adequacy in considering technical risks;
- Success in identifying/avoiding technical problems;
- Effectiveness in leveraging (synergy with) other areas of research; and
- Demonstration of willingness to make tough decisions (i.e., cut programs with sub-critical mass of expertise, divert resources to more promising areas, etc.).

Score	Performance
3.8 – 4.3	Research plans are proactive, not reactive, as evidenced by making hard decisions and taking strong actions; plans are robust against budget fluctuations – multiple contingencies planned for; new initiatives are proposed and funded through reallocation of resources from less effective programs; plans are updated regularly to reflect changing scientific and fiscal conditions; plans include ways to reduce risk, duration of programs.
3.1 – 3.4	Plans are reviewed by experts outside of lab management and/or include broadly-based input from within the laboratory; research plans exists for all program areas; plans are consistent with known budgets and well aligned with DOE interests; work follows the plan.
2.8 – 3.0	Research plans exist for all program areas; work follows the plan.
1.8 – 2.0	Research plans exist for most program areas; work does not always follow the plan.
0.8 – 1.0	Plans do not exist for a significant fraction of the lab's program areas or significant work is conducted outside those plans.
0 – 0.7	No planning is done.

3.3 Provide efficient and effective communication and responsiveness to customer needs

In determining the performance of the Objective the DOE evaluator(s) shall consider the following as measured by Program Office reviews/oversight, etc.:

- The quality, accuracy and timeliness of response to customer requests for information;

- The extent to which the Contractor keeps the customer informed of both positive and negative events at the Laboratory so that the customer can deal effectively with both internal and external constituencies; and
- The ease of determining the appropriate contact (who is on-point for what)

Score	Performance
3.8 – 4.3	Communication channels are well-defined and information is effectively conveyed; important or critical information is delivered in real-time; responses to HQ requests for information from laboratory representatives are prompt, thorough, correct and succinct; laboratory representatives always initiate a communication with HQ on emerging issues there are no surprises.
3.1 – 3.4	Good communication is valued by all staff throughout the contractor organization; responses to requests for information are thorough and are provided in a timely manner, the integrity of the information provided is never in doubt.
2.8 – 3.0	Evidence of good communications is noted throughout the contractor organization and responses to requests for information provide the minimum requirements to meet HQ needs; with the exception of a few minor instances HQ is alerted to emerging issues.
1.8 – 2.0	Laboratory representatives recognize the value of sound communication with HQ to the mission of the laboratory. However, laboratory management fails to demonstrate that its employees are held accountable for ensuring effective communication and responsiveness; laboratory representatives do not take the initiative to alert HQ to emerging issues.
0.8 – 1.0	Communications from the laboratory are well intentioned but generally incomplete; the laboratory management does not understand the importance of effective communication and responsiveness to the mission of the laboratory.
0 – 0.7	Contractor representatives are openly hostile and/or non-responsive – emails and phone calls are consistently ignored; communications typically do not address the request; information provided can be incorrect, inaccurate or fraudulent – information is not organized, is incomplete, or is fabricated.

For questions 3.4, 3.5, and 3.6, please use the following numerical rating scale:

Numerical Rating		Adjectival Rating (Definition)
4	-	**Outstanding** (Exceeds performance expectations)
3	-	**Excellent** (Meets performance expectations)
2	-	**Good** (Meets most performance expectations)
0	-	**Marginal** (Does not meet performance expectations)

Numerical ratings (N) will be converted back to adjectival ratings using the following scale:

3.5 < N	-	**Outstanding**
2.6 < N ≤ 3.5	-	**Excellent**
1.6 < N ≤ 2.6	-	**Good**
N ≤ 1.6	-	**Marginal**

For assistance in completing these questions, consult with the Office of Scientific and Technical Information, SC-33.3.

3.4 Effectiveness of making Scientific and Technical Information (STI) results available to maximize value of the research. (Are useful STI products or identified technical reporting deliverables made available to OSTI so that DOE reporting and public release can be completed as appropriate? What other means are used to announce the STI?)

3.5 Implementation of electronic reporting and access as a Departmental initiative. (Are researchers beginning to use electronic reporting? Are laboratories and other major facilities modifying their information infrastructure, such as hosting more full-text STI documents on web sites?)

3.6 Incorporation of STI into projects and plans. (Is STI recognized as a key outcome of R&D that is planned for during the activity? Are activities coordinated with STI counterparts?)